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TAB2 Antibody

Catalog # ASC10267

Product Information

Application	E, IHC-P
Primary Accession	Q9NYJ8
Other Accession	NP_055908, 14149669
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	76494
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TAB2 antibody can be used for detection of TAB2 by immunohistochemistry at 5 □g/mL.

Additional Information

Gene ID	23118
Other Names	TAB2 Antibody: CHTD2, MAP3K7IP2, KIAA0733, TGF-beta-activated kinase 1 and MAP3K7-binding protein 2, Mitogen-activated protein kinase kinase kinase 7-interacting protein 2, TAB-2, TGF-beta activated kinase 1/MAP3K7 binding protein 2
Target/Specificity	TAB2; TAB2 antibody is human specific. TAB2 antibody is predicted not to cross-react with other TAB proteins.
Reconstitution & Storage	TAB2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TAB2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TAB2 {ECO:0000303|PubMed:10882101, ECO:0000312|HGNC:HGNC:17075}
Function	Adapter required to activate the JNK and NF-kappa-B signaling pathways through the specific recognition of 'Lys-63'-linked polyubiquitin chains by its RanBP2-type zinc finger (NZF) (PubMed:10882101, PubMed:11460167, PubMed:15327770, PubMed:22158122, PubMed:27746020, PubMed:33184450, PubMed:36681779). Acts as an adapter linking MAP3K7/TAK1 and TRAF6 to 'Lys-63'-linked polyubiquitin chains (PubMed:10882101, PubMed:11460167, PubMed:15327770,

	PubMed:22158122, PubMed:27746020). The RanBP2-type zinc finger (NZF) specifically recognizes 'Lys-63'-linked polyubiquitin chains unanchored or anchored to the substrate proteins such as RIPK1/RIP1 and RIPK2: this acts as a scaffold to organize a large signaling complex to promote autophosphorylation of MAP3K7/TAK1, and subsequent activation of I-kappa-B-kinase (IKK) core complex by MAP3K7/TAK1 (PubMed:15327770, PubMed:18079694, PubMed:22158122). Also recognizes and binds Lys-63'-linked polyubiquitin chains of heterotypic 'Lys-63'-/'Lys-48'-linked branched ubiquitin chains (PubMed:27746020). Regulates the IL1-mediated translocation of NCOR1 out of the nucleus (By similarity). Involved in heart development (PubMed:20493459).
Cellular Location	Membrane; Peripheral membrane protein. Endosome membrane; Peripheral membrane protein. Lysosome membrane; Peripheral membrane protein. Cytoplasm, cytosol. Note=Following IL1 stimulation, translocation occurs from the membrane to cytosol (PubMed:10882101) Interaction with TRIM38 promotes translocation from cytosol to endosome and lysosome (PubMed:24434549).
Tissue Location	Widely expressed. In the embryo, expressed in the ventricular trabeculae, endothelial cells of the conotruncal cushions of the outflow tract and in the endothelial cells lining the developing aortic valves.

Background

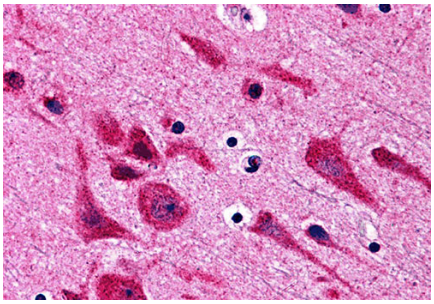
TAB2 Antibody: TAB2 is an activator of MAP3K7/TAK1, which is required for for the IL-1 induced activation NF-kappaB and MAPK8/JNK. This protein forms a kinase complex with TRAF6, MAP3K7 and TAB1, thus serves as an adaptor linking MAP3K7 and TRAF6. This protein, TAB1, and MAP3K7 also participate in the signal transduction induced by TNFSF11/RANKL through the activation of the receptor activator of NF-kappaB (TNFRSF11A/RANK), which may regulate the development and function of osteoclasts. Recent experiments have shown that TAB2 and the related protein TAB3 constitutitvely interact with the autophagy mediator Beclin-1; upon induction of autophagy, these proteins dissociate from Beclin-1 and bind TAK1. Overexpression of TAB2 and TAB3 inhibit autophagy, while their depletion triggers it, suggesting that TAB2 and TAB3 act as a control point for autophagy.

References

Takaesu G, Kishida S, Hiyama A, et al. TAB2, a novel adaptor protein, mediates activation of TAK1 MAPKKK by linking TAK1 to TRAF6 in the IL-1 signal transduction pathway. Mol. Cell 2000; 5:649-58.
Maizukami J, Takaesu G, Akatsuka H, et al. Receptor activation of NF-kappaB lingand (RANKL) activates TAK1 mitogen-activated protein kinase kinase kinase through a signaling complex containing RANK, TAB2, and TRAF6. Mol. Cell. Biol. 2002; 22:992-1000.
Criollo A, Niso-Santano M, Malik SA, et al. Inhibition of autophagy by TAB2 and TAB3. EMBO J. 2011; 30:4908-20.

Images

Immunohistochemistry of TAB2 in human brain tissue with TAB2 antibody at 5 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.